DR. ELSON BOWMAN HELWIG
ARMED FORCES INSTITUTE OF PATHOLOGY
ORAL HISTORY PROGRAM

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[Note: This transcript was not edited by Dr. Helwig]

Q: Dr. Helwig, could you give me a bit about your background, where you were born and grew up?

DR. HELWIG: Well, I was born in Indiana. I say at Thurston, Indiana, although I was actually born two miles away from Thurston, out in the country. I lived there with my Mother and Dad until I was about five years of age, when the family moved to Warsaw, Indiana, about twelve miles away, and lived there in Warsaw, then, until I went to college. I went through grade school and high school in Warsaw, and then went to college at Purdue University, where I spent two years, and then I transferred to Indiana University. And at that time, there was a little confusion because I had taken a premedical course at Purdue, but when I applied to Indiana University they told me I was not eligible because I did not have one essential course--Greek and Latin Derivatives. So I went to Indiana University for one semester, taking the course on Greek and Latin Derivatives, and then reapplied for medical school, and I was accepted.

In the meantime, the second semester, I moved to Washington, Indiana, where a classmate of mine at Purdue lived, and I knew that was a center where there were many refining companies. And through him, this friend, I got a job at Sinclair Refining Company, working in the control chem. lab. I had applied, of course, to go to medical school, but if I had not gone to medical school, I would have probably gone to Armour Tech, now called Illinois Tech, where some others there in this experimental laboratory in the refinery were going, to further their capabilities and study the refinery business.

But I was accepted for medical school, and, by fall, I went down to Indiana University at Bloomington.

Q: What prompted you to go into medicine?

DR. HELWIG: Well, I've had that asked many times. Now I never, as I think back, had any pressure, any suggestions that I go to medical school, from my family. I can remember all during high school that I had a feeling that I wanted to be a physician, but I don't recall any specific pressure from anyone.

Q: Anyone in your family a doctor?

DR. HELWIG: There are now.

Q: But when you grew up in Indiana?

DR. HELWIG: No, there was no one in particular in the family that was a physician.

Q: I might point out, for the record, you were born in March of 1907. Well, then you became a doctor in June, 1932, from the University of Indiana. Where did you do your internship?

DR. HELWIG: I did my internship in Indianapolis at the Indianapolis City Hospital. I did a rotating internship, and then I became the first resident in pathology at the Indianapolis City Hospital. At that time, there were only four or five pathologists in the whole State of Indiana: one in Ft. Wayne; one down in Evansville, Indiana; one in South Bend; one at the Methodist Hospital in Indianapolis; and then two or three at the university.

Q: What led you to pathology?

DR. HELWIG: Well, that's a rather interesting story, too. I was very fortunate and got a job there at the Indianapolis City Hospital. The job that I had first was a job working in the front office, so to speak, where the patients came in and you directed the patients, and then also you ran the switchboard for a certain number of hours. There were three or four of us medical students, and we had one particular place to live there in the hospital, which we called "The Den." And we got our board and room and laundry for doing that. So, the second year there, there was a doctor up with the group there, Dr. Deems, who was finishing his senior year and leaving the den, so to speak, and then he became an intern. Now he at that time was working in the laboratory, so that job became open, and I applied for it and got the job. And of course being in the laboratory associated me with the laboratory tests and pathology. I liked it, and I guess I stayed in it.

Q: You certainly have. You stayed with pathology, then, for the rest of your career, is that right?

DR. HELWIG: Right.

Q: In this time, we're really talking about the thirties, you served in various hospitals, didn't you, in positions dealing with pathology?

DR. HELWIG: Yes. Of course, it was in the depths of the Depression when I graduated, and no one had any money. In fact, I had two paper routes (two papers and one route) that provided a little additional money. There were morning papers and evening papers, and you could sell the papers for two cents or three cents, and one paper had the funny paper, too. So I had that for a while, and the money I made from that amounted to seven or eight dollars a week, which was quite a little bit of money at that

time. One could go downtown, which the group did about once a month, to Charlie's, one of the best eating places in town, and you could get a big dinner for sixty-five cents.

Q: Oh, boy! Well, I note that during the thirties you worked not only in Indianapolis, but you were in Western Reserve University in Cleveland, and then the City Hospital in Cleveland, before moving on to New England, where you were at the New England Deaconess Hospital. Again, there you were assistant pathologist, from 1936 to '39. Had you come into contact with the Army Museum at all, which was, of course, the predecessor of the Armed Forces Institute of Pathology?

DR. HELWIG: No, I never heard of it at that time. Now I had a year of pathology at the Indianapolis City Hospital, and that was the first year that the City Hospital had a full-time pathologist. And when I got partly through the year, I realized I needed more training. It so happened that one of the individuals that had been an intern at Indianapolis City Hospital was now in pathology in Cleveland at the Western Reserve University. Well, I wanted to get more training, but I didn't know where to go. I sat down and I wrote to a half a dozen or so professors that had written books or that I had heard of, and wrote them about applications. I got back two or three favorable replies, and in the one from Cleveland, where my friend Dr. Bayliss was employed as pathologist, he sort of guided me a little bit. Anyway, I liked what I saw there and applied for the position of assistant pathologist at Lakeside Hospital, which was a part of the university system, and got an appointment. The professor there was Professor Karshner, well known, written a textbook. And it was a great year for me. And the second year, I went over to the Cleveland City Hospital. He ran that hospital pathology, too, so I had two years under him.

Q: Well, in 1939, of course, the military action started in Europe, the war was going there and all. Did the war affect your work when we came in in 1941?

DR. HELWIG: The experience, my tour, whatever you want to call it, in Boston with Dr. Shields Warren, although the war had started elsewhere at that time, we really had no effect there at the hospital itself. So I was there three years. And then Dr. Robert Moore, who at one time had been at Cleveland Hospital and received his training, then at Cornell University was selected as a professor of pathology of Washington University in St. Louis, interviewed me and accepted me in his department down at Washington University of St. Louis, Barnes Hospital. Now during that time, as it went along, why, there were some individuals that had pulled out, so to speak, and joined the Army, or, if they were in the Reserves, they were picked up for active duty. And that was the first time really that it was affecting the work we had to do; it came as sort of a shortage of personnel.

Q: What was your first connection with the Army Museum?

DR. HELWIG: During the latter part of the time I was there in St. Louis, a couple of

visitors came there, there was a meeting and a dinner, and all the members of the department were invited to participate in the dinner. And two people that were members of the group meeting there were Dr. Callender, who of course was in the Army, and Colonel Ash, also in the Army. And I saw them both and met them both at that time. It was my first meeting with anyone from the Army directly. Now Colonel Ash previously had been up through Boston and visited there with Dr. Warren. He was looking for certain kinds of tissue-specific thyroids, and hoped that we could contribute some to the Army Medical Museum, which it was called at that time. So those were my only connections, until later, as the war went on.

Q: Well, then, how did you join the Army Medical Museum?

DR. HELWIG: Well, I guess you meet your friends along the way. When I was in St. Louis, Reuel Sloane was over at the St. Louis City Hospital, he was a young man over there, as I was, working at the University of St. Louis. I was secretary of a pathology group there in St. Louis, and I got to know him well. And then, later on, Reuel Sloane was in the Army and he became the executive officer for Colonel Ash.

Q: I might mention that Colonel Ash was the director of the Army Medical Museum first from '29 to '31 and then from 1937 until 1946.

DR. HELWIG: My association with him was '37 to '46, in there. Reuel Sloane was quite a dreamer. He envisioned that after the war there would be a series of institutes. These would be located out here.

Q: In Washington?

DR. HELWIG: Yes, Washington and Maryland, over the line there in Maryland, where part of Walter Reed is now. There would be an institute of pathology, an institute of radiology, and all down the line. And it was in the papers at the time; they had taken up the idea that that was a good idea. But of course it never came to pass; they built a new institute here on the grounds of Walter Reed. I guess the Walter Reed Institute of Research is moving out to Forest Glen. That was the area that had been proposed, and had been some sort of a recreational area, I believe, up till more recently, and perhaps a girls' school out there at one time.

Q: What year did you come to the Institute of Pathology?

DR. HELWIG: I came here at first in 1942, when I was in the Army. I had volunteered, and I was sent here to be activated, here at Walter Reed. I was here for about three or four weeks, and then I was sent down to the old Army Medical Museum, down at 7th and Independence Avenue, and was down there until the first of July, then was sent to Bruns General Hospital, out in Santa Fe, New Mexico. So I was then in the war, so to speak,

and ultimately was sent to our base laboratory over in Oahu, Hawaii. There were four laboratories of that type. They were called medical general laboratories. Number one was in Africa, and Dr. Tracy Mallory from Massachusetts General Hospital headed that laboratory. Number two was in England, and Murray Angeline headed up that one. One was the base laboratory on Oahu, where I headed up the pathology department and was also an executive officer of the organization. And then Dr. James French, who at one time had been in the surgeon general's office and later was professor of pathology at the University of Michigan, headed up number nineteen, down in the Philippines.

Q: When did you get assigned to the Armed Forces Institute of Pathology?

DR. HELWIG: Well, here we are again, I'm in charge of the pathology laboratory in the Eighteenth Medical General Laboratory there in Oahu, and Dr. Sloane (Colonel Sloane) was here with Colonel Ash, here at the Army Medical Museum, and he had this idea, as I told you before, of having this big institute of pathology out at Forest Glen. He was trying to find staff to staff it, and he corresponded with me, and I expressed an interest in it. And the more he told me about it, the more it appealed to me. So we kept this correspondence going. And then ultimately I looked around at four or five different places, and my wife liked the area, and I liked what it seemed the possibilities were for the institute, and I accepted their offer.

Q: When was this?

DR. HELWIG: That would be in 1946.

Q: The war was over by that time. Was Colonel Ash, when you got here, still in charge?

DR. HELWIG: Colonel Ash was still in charge, but General Dart was here on the grounds, sort of briefing himself. Then, of course, General Dart succeeded Colonel Ash. Colonel Ash retired from the Army and became the chief registrar for the American Registry of Pathology.

Q: But still here with the Institute.

DR. HELWIG: That's correct.

Q: Did you get any emanations of the problems between Colonel Ash and General Dart? I talked to Dr. T. C. Jones, who was saying he got sort of caught in between these two gentlemen, two very strong wills and all, and apparently it didn't work too well keeping them together here for a while.

DR. HELWIG: Well, I think it would be inevitable if two topnotch individuals, each having run a certain segment of the Institute's laboratories, that their paths would

probably cross, there'd be some difference of opinion, both, I think, would have solid opinions, that, naturally, they're not going to have the same opinions. So, superficially, there was some difference of opinion at that time. General Dart, of course, received the appointment of the director of the Institute, and since he had that, why, his opinions and ideas would be taken and utilized more than Colonel Ash's.

Q: What type of work were you doing? Did you have a specialty when you came to the Institute?

DR. HELWIG: Well, my interest, of course, was in surgical pathology, and I was interested in the gastrointestinal tract, and then skin. Mostly, the gastrointestinal tract interest developed under Dr. Shields Warren in Boston, and then when I was in St. Louis, I still had that interest, but there was the Bernard Skin Cancer Hospital there that was loosely associated with both the St. Louis University and the Washington University, and I became a consultant there and ran a conference down there every week. So I developed an interest in skin at that time.

Q: First, it was the Army Museum, and then the Armed Forces Institute of Pathology, but from '46 on, did you see a change in the role that it played in medicine, not only just military, but also civilian medicine?

DR. HELWIG: Well, of course, during that time and preceding that, I think the interest as far as civilian medicine came along going back to General Callender. He changed the Institute, I think, a great deal. I, of course, wasn't there; this is hearsay.

Q: I might point out, he was director of the Army Museum from 1920 to 1922, and then from 1924 to 1929.

DR. HELWIG: He had the idea that the Institute, the Museum at that time, should be more than just a place for collection of odd specimens, that this should be utilized for teaching purposes and research. And almost, I think, built on that idea, the Museum at that time changed its character some and did develop a number of registries. I think one of the first was the Ophthalmology Registry, and then, during the thirties in there, there was quite a growth, and then into the forties. And the registries, in most instances, represented a given specialty in pathology, and were composed of clinicians, mostly, that had organizations, and the organizations were primarily for teaching and learning. And pathology was one of the facets or areas that they wanted to become more knowledgeable about. And they would help support these registries here, situated actually at the Institute, and then someone in the Institute, some member of the staff who was particularly interested in that phase of medicine, that phase of pathology, would become the man in charge of the registry here at the Institute.

Q: So you took over a registry?

DR. HELWIG: Yes, I took over a registry in skin, and then later in gastrointestinal pathology.

Q: How was this system used, both from the civilian world and the military world? How would you get things, and what would you do about them?

DR. HELWIG: The Institute, of course, at that time did not charge for examination of specimens, as they do now. And there were individuals on the outside, and it was publicized that if you had an interesting case, a case that was a diagnostic problem, that you could send it to the Institute and they would give you an additional opinion of what they thought that was. Now there were some pathologists in the country that took advantage of that, they sent in a lot of things. And that was not desired; one didn't want routine things, and these pathologists would send in routine. So we had that sort of problem. But, along with that, we did get these cases that we could get enough of and study and come up with some conclusion about the natural history of the disease. And if it had been treated some way, we could make some comment on the basis of our experience, this is what's happened to these patients on the basis of this treatment. So it opened itself right away to that kind of investigational research.

Q: How did you deal with the pathologist who would send in too much? Would you just sort of lose their routine request or something, in a way, to sort of send a message out?

DR. HELWIG: No, I guess that was suggested at times, but we really didn't do it. We did send letters out to them and tell them that our facilities were limited, and we did desire their unusual cases, but we could not take routine cases, and hoped that they would be able to get their consultation on the routine cases from other pathologists in their area.

Q: Now how would this work? A specimen would come in, a request. Would one person handle this, or would it be sort of a collegial look at the specimen to come to a decision? How were decisions arrived at usually?

DR. HELWIG: Well, as the staff developed and additional people came, they were selected on the basis of their interests and the availability or nonavailability of someone in that area to examine that kind of specimen. Well, it was agreed that, for instance, Dr. Gus Klink, who's now dead, came down here from the State of New York, and he was interested in thyroids. Well, the Institute wanted someone that was interested in thyroids. So that's the way this thing sort of developed from then on.

Q: You were in charge of a registry.

DR. HELWIG: Yes.

Q: So would you have several younger doctors, or less-experienced doctors working under you, and then you would sort of supervise their work? Or how did that work?

DR. HELWIG: Well, you hoped to have enough younger people there, people who had passed their Boards, or nearly completed, that could help. And that, of course, was always a problem. We had a number of physicians we called junior pathologists--not a very good name, but they were young pathologists. And then also there were military that knew about these positions here, fellowships, so that we had a few military fellowships. Then at that time it seemed like there was always a war, or at least a situation where the military had to keep a certain number of people on more or less alert, and they had these young doctors who would come into the military for two years.

Q: This was the Berry Plan.

DR. HELWIG: Berry Plan, yes. And so we got a number of individuals that way, to fill these positions to help sort out these cases. Although the chairman of the department was responsible for every one that went out. It may have been all worked up, and then the chairman of the department would go over it quickly and agree or disagree, say this has got to be reworked up, we've missed something, and so forth. So the chairman was responsible for the ultimate diagnosis.

Q: Well, the great strength of the Institute and the registries was that, where the normal pathologist would only have one or two examples of a case, you would have a massive set of cases which you could compare.

DR. HELWIG: That's true. The joke, the story around is that if the disease didn't exist at all, we would have fifteen examples of it. Of course, looking at all of this material, you would make notes, keep a record. Most of the pathologists (we didn't have computers then) would keep their own records, although their diagnoses were listed and kept in a file. But the pathologists would see some lesion that looked unusual--"I've never seen this before"--and he'd have this put back on a card, and then in two months or two years from now he found another case, and maybe the next day the third case, and he would build quite a collection. And then at the end of that time, or at some time when he felt there was enough there, he was drawing some sort of conclusions or thoughts about it, he'd say, "I think we ought to do a study on this." And then he'd usually take one of these younger men and say, "Now let's do this study. I've got these cases here; I think they line up as a definite entity. We want to get follow-up." We had a good follow-up division in those days. And we would follow-up patients, whether alive or dead, or whether the lesion had recurred and that sort of thing, and we got the natural history. So, by the end of the time then...this was not done just overnight; when you go after follow-up, it often takes a long time to search some of these cases out, where the patient's living now--he's living maybe in Indianapolis today and California tomorrow. But once you collected a fair number of cases of follow-up, then you could try to draw conclusions.

Q: Well, now, a follow-up, in the first part, would almost require really more the services of somebody with the attributes of a good private detective just to find them. That wouldn't be really a medical problem to begin with, until you found the person. Who would do the following out there?

DR. HELWIG: Well, we had the Follow-up Department here. They were really capable individuals in those days. They had more tricks of finding some way to find where this individual is. They can go to something in government if the individual found that he was working in government some way, and they could go down that way. And one interesting incident was that one of these ladies that was working there was watching television one night and she saw this patient on television; she said, "That's the patient I've been looking for!" So that just gives you an idea of how dedicated they were. They were just a part of this thing, they wanted to get all this information. It wasn't something that "Well, I've got to come in here and do this today," but they were as interested in getting this thing out as the doctors were.

Q: Well, this follow-up system, which I think would be absolutely vital, did this become more systematized? How did this work later on? Because you've been associated with this Institute about fifty years now.

DR. HELWIG: Well, yes, it did, I guess, I don't know exactly what you mean by systematized. But individuals would be assigned to a certain project. I was maybe working on polyps of the colon, or something of that order. I was going to get a follow-up on a number of these cases, many different from the others, and one individual down there would be assigned by the chairman of that department, a nonmedical person but someone that was capable of managing ladies and men. So that they got involved in the individual projects. There were umpteen projects there, and one of them took one, and one took another, and then they mixed it up and all like that, so one person probably had three or four projects she was working on, and another had three or four, and another, three or four.

Q: Under the Berry Plan, you'd be getting these doctors in for several years and then they would leave. Wouldn't this leave tremendous holes every time they left? They would be building up this knowledge and experience and then...

DR. HELWIG: Well, you've hit the nail on the head there. Many people think that here you've got these cases now, it looks like there's about enough there, let's look at this and make this a research project. And you'd pick this individual out. At least myself, and I think other people, too, you had several different areas that you could put someone to work on. But you never liked to put anyone to work on a project unless it caught his eye, he had an interest in it. You don't want to assign a fellow who says, "I don't like that job, I don't care about it." So don't assign it, because he's not going to do a good job. But if

he says, "Oh, that looks good," then you assign it to him. And of course you watch him as he goes along, and make suggestions what he should do, and help him work out the follow-up questionnaires that go out. But a lot of those individuals that came in here were really topnotch.

Q: Did you find it difficult when they left? Because their tour wasn't really that long, it was two years.

DR. HELWIG: That was a problem, and still is, I think. But they don't have the follow-up system any more. There were individuals that would come in the week before and say, "I haven't quite finished this. I'm going to go a new place. And I will have a lot of time when I get to the new place, because I won't know just exactly what to do at first, and I'll work on it." Of course, when he gets there he never has any time, so he doesn't finish it. So you may have told him (I got that way, later on, anyway), "Now if you don't finish this, I'm giving it to someone else." And did that. So, you're right, they're here only for a limited time, and if they don't finish it, it's a problem.

Q: The Army Medical Museum became the Army Institute of Pathology, and then in 1949 it became the Armed Forces Institute of Pathology. When you were there, was there any problem in melding what was then the new Air Force and the Navy into what had been an Army institution?

DR. HELWIG: Well, there wasn't any problem with the Air Force, because they had been part of the Army and they just fit in there. There may have been little flips here and there, but it was nothing. The Navy was quite different. During the war, they had their own more or less central laboratory of consultation out at Bethesda. It wasn't organized well, like Colonel Ash had the Army. The Army was just so well organized with those four medical general laboratories. So it meant that everything in those four different parts of the world came to the four medical general laboratories, and from there in here. And then he had, in the United States, a series of service command laboratories, so that every appendix didn't come in here, but went to the service command laboratory, and then they sent it in here. So things that came in here were well scrutinized and censored, so to speak, for something that would be of interest and of importance to the Army.

Q: Well, I would have thought that, particularly with the Naval Hospital at Bethesda and the Armed Forces Institute of Pathology both here basically in the Washington area, there would have been a certain amount of friction and all in bringing the Navy in. Did you find that, particularly in your experience, in your field?

DR. HELWIG: Well, in my field I didn't see a lot of it. But I know what you're talking about. The Navy was the Navy, and the Army was the Army. And they ran differently. And I think at first there were certain places that I've sent things into the Navy, at Bethesda, they didn't go for sending it to the Army, to the AFIP. But time, I think, more

or less took care of that; some of it took quite a long time.

Also, there is amongst pathologists, I would say...I learned this from Dr. Kernahan, who a long time ago was in charge of pathology at the Mayo Clinic. Their pathology out there, the individual's commissions that sent things to the pathology department wanted to know exactly who looked at that tissue. When radiologists sent something to the radiology department, they didn't care who looked at it. But pathologists, they wanted that certain pathologist to look at it. Well, not as far as the radiology, but that sort of follows through here even today. When someone sends in their... and gets a notice back from Joe Smith, pathologist, and he doesn't know Joe Smith from the moon, he gets upset. When he sent it in to Dr. Enzinger to look at, and Dr. Enzinger didn't see it, he's terribly upset.

Q: This is always the problem, I'm sure, administratively, to have a new, probably very bright, person come in to the field, but how do they establish a name?

DR. HELWIG: Yes, that's right. And then of course there's the other aspect of this as far as recognizing the name. A pathologist that comes in here at a certain time, he's familiar with the pathologists on the outside at that time. And then as times change, the pathologist here, say, moves someplace else or dies, then this fellow on the outside, his friend here isn't here any more, and he doesn't know what to do, because he doesn't have any way of knowing whether this individual in here is any better than he is. So there is that problem.

Q: Did you find any difference between the military side (because, after all, this is the Armed Forces *Institute of Pathology) of what you were doing and the civilian side in the consultation work?*

DR. HELWIG: Well, there are two aspects. Of course, the military, by authorization, had to send in certain kinds of cases. And some of those pathologists that were outside there had been here at the Institute, and they knew everybody in the Institute, and they knew the ones that, in their mind, were really topnotch and others that they didn't care about their diagnoses. So when it came to sending in some things to this individual they didn't care about, they dragged their feet, so to speak. The private individual that would send it in here, of course he was doing it on his own, and he knew probably who this individual is if they were still here, and would send it in if he wanted that fellow's opinion. If he didn't know, he'd take pot luck, and develop his own opinion, inquire around afterwards. If he gets a diagnosis back that he doesn't agree with, he asks somebody else, "Well, what's been your experience when you've sent it up there?" So word gets around. You go to the meetings, and people talk. The annual meetings, with eighteen thousand people.

Q: Did you find that as time went on that there were any major changes in how the Institute operated in terms of the administration of the Institute? Did you find that there

were times that you found it much easier to operate within the system, and other times when it was more difficult?

DR. HELWIG: Yes, I agree with what you've said. I don't want to elaborate on it. But I guess that would happen anytime when the manager, so to speak, changes. He's got different ideas about things. You've been doing it one way, liking it, and the next manager, chairman, or director that comes along says, "Well, I don't like that, and I want it done this way." There were methods; there was a committee from the staff that would meet, sometimes, for some regimes, every week or every two weeks and they would talk about problems that the fellows were having. And the chairman then for the department, the Center for Advanced Pathology, at was called, would take the information that was coming up from the pathologists up to the director, and brief him so he could think about it and study it. On the other hand, he may have had some idea that he would give you, and you took it back down to the committee and tossed it out to see how they liked it. So there was the exchange. Now that varied greatly with the directors. Some directors were very anxious to know that, and wanted to utilize it to its nth degree of trying to make things work. And others were more of a one mind.

Q: Well, I would imagine there would always be pressure on the directors to see that each department was answering its mail, you might say, at an expeditious rate. And I'm sure that there must have been some departments that were slower, more contemplative than others.

DR. HELWIG: Of course a lot of the staff said this isn't a hospital, this is an institute of pathology. Hospitals should get their diagnoses back the next day. Now we have a lot of problems with even just the mechanical part of getting things in here and getting them out in a reasonable time. Of course there are others who want to study this thing, and they do this, that, and the other thing, and when they finally come to a diagnosis, why, you expected and it probably was as correct as could be, but it may have taken two weeks, three weeks, or four months. And then there were some that just didn't operate even that fast.

Q: How about in your field? How would you describe your style of management as far as answering the mail?

DR. HELWIG: Well, I thought ours was pretty good as far we could do with the system. To move things from one place to another around here, you'd give it to, well, we had the mailman. I guess they've changed that some now that they've changed many different ways of trying to operate to move things through faster, and most of them didn't work. We had the ladies or men or people down there that originally get the case or cases and sign it in. There were two approaches to do that. One, well, I'll make this ridiculous, but the case comes in, one individual writes down the name of the case, it moves along and the next person working there writes down the hospital that the case came from, and you

just went down along like that. Or this case came in there and Mrs. Jones took the case and she worked everything out. It really didn't make a whole lot of difference between the two, they didn't pick up any. But really the director has always said, well, we just rush this out, I guess, within forty-eight hours. Well, there were some departments that were very small, and they could have a case come up there, and they had such a small number coming in that they could almost, in their minds, keep what cases were coming in. And he'd look at that and it was obvious to him, he'd pick up the phone and he'd say, "Joe" (he probably thought that Joe sent in the cases before), "I've looked at Mrs. Jones's case here that's just come in, such and such a number, and my diagnosis is so and so." So Joe'd give an official diagnosis one of these days. So there's that way to do it. But if you've got a lot of cases coming in, you can't mix them up like that, you'd screw the whole thing up.

So there've been drives every so often--every month, every six months, every year--we're going to change this system; we're going to put another gal down there; we're going to work this so it goes through. But it always seems to get back to a delay.

And there are other things that do this. They have a pool down there, a secretarial pool (I guess they still have it; I don't send out cases any more). Things got a little ridiculous. They went down with a tube or a disk, and they typed it out down there, and it came back upstairs to the pathologists, and they looked at it. And he often will find some errors, so he sends it back there to make corrections. Now, in some instances, instead of the individual correcting those errors, they started from scratch, they typed the whole thing over again, not just correcting those errors but making other errors. So, going back and forth. So it was very, very difficult to control that. It wasn't something where you could say to your secretary, sitting out there at the next desk, "Say, Susie, fix these errors up and let's get this out right away."

Q: This is an endemic problem with a pool, where you don't have sort of case-specific secretaries. What about the advent of the computer? I would have thought that this would have made quite a difference, both for research and for retrieval of specimens, and also for the better processing of cases.

DR. HELWIG: Well, I think it has. Now I can't use a computer, I know something about it, but I can't use a computer. But for those that can type up their reports, it steps it up.

Q: How about the retrieval of information for specimens?

DR. HELWIG: Yes, that's working out, too.

Q: You came here when World War II was just over, but then the Korean War, from 1950 to '53, hit us, and then the Vietnam War, which was really from about 1962 to '73 or '74, hit us. Did you find any changes in what you were having to deal with? Did these wars have an effect?

DR. HELWIG: Oh, I don't think too much. We always said, the Institute, from the employee standpoint, did better when a war was on than in peacetime. And there's a certain amount of truth; they got more people in here.

Q: Sure, and Congress is more willing to give money and all that. Oh, absolutely.

DR. HELWIG: So there were certain things, for instance, things like hepatitis, which was a very important problem at one time. I guess that was the Korean War. But there were several instances when we got material in that I don't think they were so much that they had to bring in sixteen more people.

Q: Did you get involved at all in the search for funds for the Institute, dealing with Congress, with the media, with the public and all? Because, obviously, with any public institution (and this was) there is always the problem of getting public funds. And, like it or not, this is what makes institutes stay alive.

DR. HELWIG: Well, I didn't have the experience of Mostofi. Mostofi, of course, just loves that sort of thing, and he's been on, I guess, all the committees out there at NIH that have anything to do with money. He gets lots of grants for us, which is a point in his favor.

There was an occasion when a certain general (he's dead now) well, I guess he wasn't too favorable in all aspects about the Institute. And we had some people in here that were in the chain of command, but they were not federal employees, these were military or civilian, and he objected to that. So, at that time (without elaborating on what really took place and how), there was some meeting, anyway, and some people came out of that thing and I guess that had some influence. Up till that time, the Institute of Pathology had been just another Army medical laboratory, and this certain general could have closed it down, moved it to Timbuktu, and all that sort of stuff. But someone got to Congress, and, lo and behold, on a bill that was just going to sail right through Congress, there wasn't any doubt about it, there was a rider put on there and, at that time, there was an Act of Congress establishing the Armed Forces Institute of Pathology.

Q: Looking back on the time you were here, maybe we can exempt the very recent present, but looking back on the various directors of the Institute of Pathology, I wonder if there are several that stand out in your mind who gave particularly strong supportive, or non-supportive, leadership?

DR. HELWIG: Before I answer that, I'd like to make a note that this Act of Congress that established the Institute, and the directive is available and I'm sure anybody can look it up, it established the Institute on a more firm basis, particularly dovetailing-in the Air Force and the Navy with the Army, so that some things became a little more clear-cut as far as directives.

Now as far as directors, yes, sometimes it seemed almost that the director that was

appointed he had certain capabilities and he came along and he just fit in there. Some of the directors, particularly the earlier ones, had a lot more experience. Some of them had experience in World War II directing large areas. For instance, just to go back to the first one, Colonel Ash, at that time he had direction of all the laboratories, and he had a lot of wonderful sense of how to direct. Then, of course, Dart had been overseas on active duty, and he had a lot experience. And DeCoursey. And then, as they came on down more, particularly the people that had gained a good deal of administrative experience in World War II, when that ran out, there were individuals that had very little experience, and perhaps had run a hospital laboratory where they had two or three or four pathologists under them, and maybe twenty-five or thirty technicians, then were put in here where you had many pathologists, seventy-five or a hundred, and lots of technicians and other support personnel, a big jump. So, some of them learned rapidly, some didn't.

So, yes, your question. Of the early ones, of course Ash, Dart, and DeCoursey all had their good qualities and experience in here. DeCoursey was the commanding officer of the Eighteenth Medical General Laboratory, and I was there and the executive officer for him. And Dart and Ash I've talked about.

Now later on, one of the individuals that was outstanding was...

Q: Here's a list, if you'd like to take a look at it.

DR. HELWIG: I knew Virgil Cornell; he was a civilian when I knew him, and so was Gillmore. And here we have Colonel Ash, Dart, and DeCoursey. Captain Silliphant, in the Navy, of course, had been a prisoner of war, and so he didn't have a lot of experience in managing a large number of people. Colonel Johnson was extremely capable. Although he hadn't had a whole lot of experience, he had considerable. And, of course, General Blumberg, a general who was very good. He had been in overseas laboratories, and he had been in other laboratories or sections of medicine, and he brought it, together with a sort of a capability that I guess was innate.

Q: I have the impression, from talking to other people, that he was one of the most innovative.

DR. HELWIG: Well, I don't think I'm speaking out of turn. We've talked about the Army, Navy, and Air Force having some friction, maybe, difference of opinion. Let's say there also was another category: civilians. Some military, I think, resented the civilians who were in here. Now even General Dart, as I understand it, felt that the civilians would come in here for two years or three years and then they'd go out into some university. Well, it didn't work out that way. Individuals weren't going to come in here for two or three years. People who had to use this material, or wanted to use this material, you don't use it in three years, you use it in maybe ten years. And so that didn't work out that way. And some of the directors, in my opinion, just never could get over the civilians coming in here. To them, they were getting the cream of what the Institute had to offer.

So we go back to General Blumberg. He was a very wise man. He was for the

Army, for the military, but he knew that a place like this had to have some civilians. And he didn't try to put them down or push them aside. He spoke highly of them when they did good work. And so I think most civilians just loved Joe and worked all the harder.

Now there were others in here that would as leave get rid of certain civilians.

Q: Well, what about publishing? In the medical profession, I've seen your resume, which goes on for many pages of things you've published. Did the Institute encourage publication of the findings, to get it out to others, beyond just the Institute here?

DR. HELWIG: Well, they did to a certain extent. If you had something that you thought was worthwhile, of course, it went out through committees. But you had a certain number of people to work with and you had a job; it wasn't just to publish, you had to make diagnoses and you had to teach. So you had a certain time for research, so that eventuates in publication. To some extent, you did a lot of that at night and on the weekends. So that there wasn't a pool that you could just reach in and say, "Oh, I've got this project here, give me a couple of secretaries and whatnot."

I have been faulted for one thing, that I was invited to write a fascicle on skin and I never did, and it hurts. We had a director that I had talked with, and he said I'll provide you with a second secretary. We had a big load. And so he did. So then we trained her, the second girl, so the first girl could work on the publication. And I would say, "Get the pictures, we need these pictures, get them made and so forth, I need them next week," and that sort of thing. And so, in about eight weeks or so, ten weeks or somewhere along in there, the staff was shrinking, so there came a shortage of secretaries, and so they reached in and took this girl out. And there went the project. And I never could get anything. And then a director came in that never talked to me about it. So it's probably partly my fault, but I never got any support.

Q: Did you find there was a difference in the type of pathologist who was coming in after the Berry Plan ceased? This was the wartime measure that supplied the military doctors for a very relatively short time; it lasted up through the end of the Korean War, and then it ceased. Did this change your method of operation and staffing?

DR. HELWIG: Well, to some extent. Now all the Berry Planners came in, and all the people that we hired, civilians, at that time, they weren't all topnotch. Some of those Berry Planners, I don't know how they got in. Some of them, as I said a moment ago, were not topnotch; others were really the cream. So those that were the cream, they were good. You can say, well, if they don't bear down, they're going elsewhere. And some of them did. So they had that hanging over them. I suppose that would be something that would encourage you to do your best work.

Now, afterwards, of course, when that was over, why, there was a different attitude of the individuals that came in here, I think. I don't think it was unique to this place. I think the whole world, maybe, I don't know, was changing. Our world, anyway. That the individuals did not have the drive that the individuals earlier on did, that would

come in here and work at night and on the weekends and so forth. There are exceptions, but many young people, they take a different attitude toward life nowadays than they did before.

Q: Did you find this had an effect on your output?

DR. HELWIG: Oh, I think so. I think it does, and yet I can name some individuals in here that are tops now. So you can't put down a blanket rule. But I think there is a greater tendency now, for a few, to shy away from long work, nights and weekends.

Q: Have you seen in recent years a difference in the role the Armed Forces Institute of Pathology is playing than it did earlier on, in the forties, fifties, sixties, and seventies, in the world of American pathology?

DR. HELWIG: Well, let's face it, the Institute's put on courses for many years that have been well attended. We used to have a course that was sort of general, run for a week, and many different subjects would be covered. We tried to, at that time, monitor it, in that all the presentations would be topnotch. And we've always had people in here that are good workers, but sometimes just couldn't speak very good English. We tried to eliminate that part in that general course. So we used to have to turn them away when we used the old theater over here. We'd have better than three hundred in there, and that was all it could take.

Now, the Institute puts on many courses. And I have it told to me that some of the courses put on last year are only drawing maybe half the attendance this year. There are probably lots of reasons for that; there's a depression on and people can't get money, and a lot of other reasons, too.

So, your question was...? I've gotten way off.

Q: Is the Institute playing a different role?

DR. HELWIG: I've got your point now. The Institute is on a different path now, I would say, than it was before. For instance, there is no follow-up organization in the Institute anymore.

Q: You examine a specimen and all, and then that's it.

DR. HELWIG: That's it. Now if you have a grant somewhere and the grant says here's ten thousand dollars for follow-up, that's something else. That's a little different than being able to have a committee here to say, yeah, that's a good program, you ought to get follow-up on that, and have a place where you can get the follow-up.

Now the idea of reporting cases that come in here. They wanted to get them out in a hurry; I've don't think they've found any real good way of really turning them out tomorrow. So that there is a delay. Let's face it, on the outside, there are a lot of good

places that do everything that the Institute does today, and do it well.

Q: These are university hospitals.

DR. HELWIG: Yes, and not only university hospitals, some big places like, say, the Cleveland Clinic or the Mayo Clinic. They send you out a brochure, "We'll get this stuff out to you" (and I don't know how they do it) "within twenty-four hours." We couldn't do that. We can say we will, but we can't. Yes, we've got an awful lot of competition. Individuals out there, they have big staffs, and they have people just like we do, somebody that can make a diagnosis of the breast. They're experts, they write. Everybody in the country, pathologists, knows them. We're up against that.

Now some of our departments, as I say, some are weak, and some are strong. There have been people who write in here and say they want to send it in here to somebody. Dr. Enzinger is not on staff here any more. He does come over on a contract, I guess, a day a week or so, but he is not a member of the staff who signs out cases. His replacement, I think, is very good, but the replacement is not well known. So if the individual hasn't sent a case in here for some time, he may think it's going to Enzinger, and he gets a diagnosis back from someone he never heard of. And I know from personal experience that the individual on the other end will write in here, "I don't give a damn about who this person is on the other end. I don't know if he's any good or not, but I wanted so and so's diagnosis!" So there is that effect.

They have taken on some good people here, like Frezera, he's topnotch. So you can't put down a blanket rule, but you do have to have somebody, I think, at the head of the staff, and it can't be somebody that turns over right away. Take someone like Skelly, up at Massachusetts General Hospital. By gosh, he's got a worldwide reputation. When people send cases to him, the individuals that send them pay. But now they pay here, too, so they don't get a free diagnosis. There were people that sent things in here when they were free that, "Well, this is an interesting case, an unusual case, let's send it off to the AFIP and see what they call it and how they interpret it." They don't send them in now that they have to pay a hundred and fifty dollars, or whatever it is.

So, yes, it's changed.

Q: What about the Medical Museum part? Have you had much to do with that? Because this has changed. I remember, as a boy in short pants, in the late thirties, going up and being fascinated by the Medical Museum in the old brick building down on the Mall. Now it's a much more modern place, but it's out here at Walter Reed, and it's practically deserted. How has the Medical Museum fit in with your experience?

DR. HELWIG: Well, I haven't had much experience. The Medical Museum has always seemed to be trying to find its niche. Some of the staff felt the Museum should be strictly a professional museum. They had dreamed up a few years ago that in the newer part of this building that they would have places down there that if pathologists had some interesting cases and you would like to see some opinions from here, you would come in

here, there's a booth there, and he would press a button and a case would flop out, with a microscope and slides and so forth, and he could study these as long as he wanted to, and that sort of thing. That was just a little farfetched for our monies, anyway, so that never really developed.

We had the Museum here, and, of course, at one time it was over here at the Bureau of Standards, I guess it was. We had the Museum across from the old building where the Department of Pathology was, in the building across the street, which had been something during World War II when the Museum was in there for a while. Then, of course, in the old building at Seventh and Independence, there wasn't any toilet in there. We had what the people said..., back in that little attached building, the privy was back there. A lot of people came into that museum and they'd go to the privy back there.

Q: I think I joined them at one time.

DR. HELWIG: And, of course, the Museum early on had all those monstrosities in there. That used to gall me. If they're going to have that, that should be strictly in the scientific area, and not four-year-olds coming there and seeing all those monstrosities.

Q: They were vivid. Yes, I remember them.

DR. HELWIG: So, as I say, it's been trying to find its niche, what it should do. Should it be two museums, one for the public, and one for the scientific, the pathologists' side? Now I guess they've got the grants, the seven hundred thousand, they've looked around from Congress from looking out for a museum downtown. As I understand it, when they first came in here, they wanted to take all our specimens down there, all our tissues and everything. God, that would just wreck the Institute. And I guess they have stopped that. I don't know what sort of a museum they'll end up with down there.

There are two sides of this story. And I would dislike to see them take out material here that pathologists could use. But here there's a shift in the Institute to DNA investigation, all kinds, which I guess maybe is good. But it hurts me, it bothers me, and people would laugh at me for saying it, but I think the Institute could contribute, from the gross material that we get in here, that kind of material, and also coming from surgical material, and to find out the biology of disease, ... treatment, perfecting it and so forth. Now you see as the research that's done here in surgical pathology, and these people come in. We talked about this a while ago, that many projects you can't complete within two years. But, as it is, with those young people coming in that two years, they didn't complete a project. Well, if they did complete a project, it was probably based on some surgical specimens that were excised. That something that if you've got the specimens, you'd see this very concrete here, you're getting follow-up on it. You're going to get, probably, follow-up that was very definite. Where, if it's some medical problem... Now I've worked on material upstairs that never really got finished because, for several reasons. I had a man working with me, and I had a man in another department, and never could agree. So it just never got done. But even so, long-time follow-up done on what

some people call deep granuloma anularia. It has a reaction much like the reaction in some cases of arthritis. And long-time follow-up would be desirable on that. Anything at that age indicates that this individual may later develop arthritis. There are a lot of points on that. But that's a long-time contract; you don't do that in two years or three years, you spread that over seven, eight, or ten years. So that kind of research has not been done in here. I don't know whether the hepatitis that was developed over there in Korea, that hemorrhagic disease, how well they've followed it. Dr. Ishak is very good in that kind of thing. There's someone in here that does that kind of pathology research. Ishak does do it, but lots of branches don't do that kind. They slough that off; they just don't do the medical side. Now that takes somebody that's dedicated to doing that kind of thing, and he's got to be allowed a long time to do it. So I think that kind of material is here, it could be done. And I think it's being done maybe more on the outside now in these universities which can get grants and their material is gaining in amount and so forth. But they are developing that source of material to work on. Then they doubt the Institute's charging for cases. As I say, there are probably several reasons, not only the charge but other reasons why the material has dropped off coming in there now. Some of the staff are just as pleased as can be that it's dropped off and they don't have to look at these cases coming in every day. They've got enough material in files, they can go down and get that material up and utilize it, but they're not bothered by making a diagnosis today, even when they charge. Some of them, I guess, they're charging and bringing in money. But they'll never bring in enough money to run this place.

Q: Yes, and it is cutting off the flow of new material, which is really the lifeblood of the Institute.

DR. HELWIG: If you're going to teach, you've got to teach with this material coming in today. And that's the thesis that the people get interested in, the young people up there. I run a skin conference on Mondays, so I get the feel of things, what's going on. And there are some days they just don't have good cases to put out. There's the file up there that someone let me keep up there. Of course, they could go back any day. But I go back and pull out some cases that are unusual, and teach with them, and it's just enjoyable.

So, yes, your answer: it's changed.

Now I've gone through stages here. Obviously, I've been around too damn long, and I know that that is the attitude. It's interesting to me to have been a young one and to have gone through the stage where everybody sort of wondered, well, what did Helwig say about this and so forth, you know. And now anybody that's out, why, they really don't care, I suppose, or at least they don't know me, know me by name. But they have their group that's coming up, and people who may like to trade, oh, you scratch my back, I'll scratch your back, and that sort of thing. Well, I've gone through that, and it's been interesting to go through it.

Now, as I say, I've been through stages. One stage was electron microscopy, and that was going to have all the answers. You make a diagnosis of cancer-- What's the criteria? What does the EM show? Well, it boils down, why, it really hasn't helped.

Certain research, yes, but the day-to-day diagnosis, it's not much help. Other than that, the emphasis is on examples of the mucins. You look in there-- What kind of mucins in those cells? What kind of cells produce this? And what kind of mucin? And that was very specific at first. This thing here identifies that kind of mucin. Well, later on, you found that that stain identifies some other mucins, too. And so the young people up there seldom ask for a mucin stain. Back not fifteen, twenty years ago, why, they asked for lots of mucin stains. I think they still help in some instances, but the young people don't. It's all on immunoperoxylis-based technique. And now, of course, going on more to DNA identifications. We do know that in some instances, for instance, just the straight immunoperoxylis stain, the S-100, was developed on the brain, I guess, of a cow or a goat, and it was supposed to be very specific for certain neural features, neural cells. Well, gosh, now S-100 is seen in so many things that it's hardly useful. Yet still it is, because it is one stain that identifies melanicytes, in most instances. And if everything fits, why, that's a melanicytic lesion. But HMV-45 has come along. Even that is not so specific now, they've got some other things. So it's all going through. I don't know what the DNA is finally going to work out, whether it's going to be just the answer--I would keep my fingers crossed. But a lot of money here is going into that, and a lot of money is not going to other things that used to be done here.

Q: Well, just two sort of final questions. One is, what makes, in your opinion, a good pathologist?

DR. HELWIG: Well, there are all kinds of pathologists. When you talk about a good pathologist, over an animal, a veterinary pathologist would be the man of choice. Now, to get over into the human material, it depends on what you're in, what kind of facility. There are pathologists (and I don't see how they actually work or operate) in small hospitals, and they just have to know everything. And some are quite brilliant, quite capable in their limited area. I don't think here that pathologists in neuralpathology would know everything about bone, or vice versa, or GI tract, although there are crossover areas where neurals in GI and neurals in the brain and elsewhere. So there are instances that you want to find out, if you're GI and you've got a neural, well, what do they think about it up there? As far as I'm concerned, when a pathologist knows that he doesn't know, he's reached a good point. Now we've had pathologists in here that don't know, but they make their diagnosis. When he knows he doesn't know. And that doesn't come just by six months training.

Q: Well, finally, Dr. Helwig, looking over your fifty-year career here at the AFIP, what has given you your greatest satisfaction?

DR. HELWIG: Well, I think that, by and large, while I've been here, that is, actually in charge, responsible for the diagnoses, that our diagnoses are as good, in my fields, as any in the country.

There have been certain incidents, one of which will always stand out. A lady

was over in Baltimore, and she had a pigmented lesion down here in the groin. And it had been sent a good many places, not only in Baltimore but other countries, and they sent it over here. The diagnosis that had come back was that it was malignant, you should go in there and tear all those lymph nodes out, tear up the whole area in there. And there were some lesions that we had seen here, I had seen. And the way the story--she wrote it to me--she was on the table, and the surgeon was waiting for the report from here. And we sent the report back: it was benign. Several years later, on follow-up, she wrote a letter about this, that she and the baby, she was pregnant, were both doing fine, and they hadn't done any radical operation. Now that sort of thing. That's probably the most dramatic to me, but I've had others. All the staff have had others like that.

So, I think doing, making the correct diagnosis. And, eventually, if you can develop some criteria for a particular lesion that you've followed and feel is an entity, you get a lot of satisfaction from writing that up.

Now I've seldom put my name first on a paper; I've liked to push the young people on there. After you've done a few, why, I don't know, you're pleased that another one's done, but it's not that one you get out every night and look at it.

But, by and large, for many years, we've had a very congenial staff. That's always been a pleasure when we've had a congenial staff. And the good work that people have done.

Q: Well, I want to thank you very much, I really appreciate this. I found it fascinating.

DR. HELWIG: Well, thank you very much. I guess there are lots of things that one could talk about, that probably have affected the Institute this way or that way, that perhaps are better not said.

Q: Okay. Well, I won't push it then.